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Valvular Heart Disease

RESULTS OF PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS WITH ISCHEMIC MITRAL REGURGITATION

ACC Moderated Poster Contributions
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Session Title: Mitral Regurgitation: Mechanisms and Treatment Options
Abstract Category: 10. Valvular Heart Disease: Clinical
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Authors: *Rayan Yousefzai, Navkaranbir Bajaj, Shikhar Agarwal, Olcay Aksoy, Bhuvnesh Aggarwal, Abdel Anabtawi, James Thomas, Brian Griffin, E. Murat Tuzcu, Samir Kapadia, Cleveland Clinic, Cleveland, OH, USA*

Background: Ischemic mitral regurgitation (IMR) is associated with higher mortality. Role of percutaneous coronary intervention (PCI) in IMR remains controversial. Our study evaluates the effects of PCI in patients with significant IMR.

Methods: From 1/1/1998 to 1/1/2010, 172 patients with 3-4+ IMR underwent PCI. Improvement of IMR was defined as a decrease in IMR from 3-4+ to 2+ or less without need for another intervention. Univariate and multivariate logistic regression analysis was performed to identify predictors of improvement of IMR. A Kaplan-Meier survival analysis was performed to compare the survival in patients with and without IMR improvement.

Results: Out of 172 patients, IMR did not improve in 67 (39%) patients, 50 (29%) patients required mitral valve replacement or heart transplant and 55 (32%) patients had IMR improvement; on follow up, 48 (87%) of those patients had sustained improvement. Left atrial (LA) size was significantly different in two groups (p=0.02) and remained significant predictor of improvement in IMR after adjusting for age and gender. Unadjusted Kaplan-Meier analysis revealed better mean survival in patients with improvement of IMR (Log-rank chi-square= 6.6, df=1, p=0.01).

Conclusions: We observed an improvement of IMR in 32% of patients post PCI. Smaller LA size was a significant predictor of improvement, suggesting benefit of revascularization in recent onset of IMR. Patients with improvement in IMR had better mean survival than those without improvement.

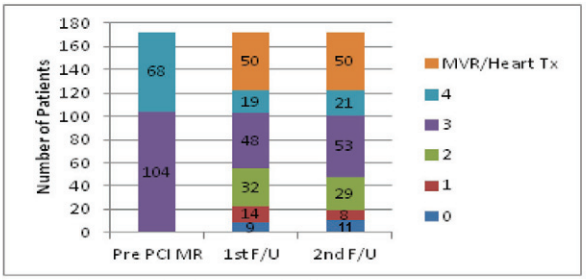

Figure1. Number of patients base on severity of IMR on follow up.